

so that it becomes as wide as the head, or one-half as wide as the corresponding portion of the neck, that is to say that portion of the neck marked by the fifth cirlet of cervical setae. At this point there is a rather faint diminution of the oesophagus, which continues thence a little narrower, afterward widening out, and then soon coming to contain granules like those found in the cells of the intestine. This latter appears to begin about opposite the tenth row of setae. There are two narrow ducts, one emptying into the posterior part of each amphid; these ducts can be followed backward to near the pigmented bodies soon to be mentioned, and possibly may be connected with them. The external expressions of the amphids, each of which is symmetrical to two lines, are of unequal diameter, without central markings, and are located toward the front of the head; they are about as wide as the corresponding portion of the head, each being about twice as wide as long. The two greenish pigmented bodies mentioned above (*org?*, Fig. 2), are olive green in color and present a nucleus in the midst of a colorless spherical cell (?) as wide as one of the cuticular annules in the immediate vicinity. These bodies are naturally rather difficult to observe on account of the hairy nature of the cuticle through which they are viewed; they are located well outside the intestine, one on each side of the body, somewhat behind the base of the neck. The broad cardiac constriction lies opposite the eighth to tenth rows of setae, and is about as wide as the distance between these rows. The thick-walled intestine presents a faint lumen and is composed of cells of such a size that about twelve occur in each cross section. In the male, at least, the intestine gradually becomes one-half as wide as the body. There is no pre-rectum. From the minute anus, whose anterior lip is somewhat elevated, the inconspicuous rectum extends inward at right angles to the ventral surface half way across the body; the intestine itself extends past the anus. No anal muscles are to be seen. There are two kinds of colorless granules of variable size to be seen in the cells of the intestine; the largest of these have a diameter equal to the distance between the rows of somatic setae; the finest of the granules are exceedingly fine. The granules are not so arranged as to give rise to a tessellated effect. The more or less convex-conoid tail tapers from in front of the anus to the tubular spinneret, which

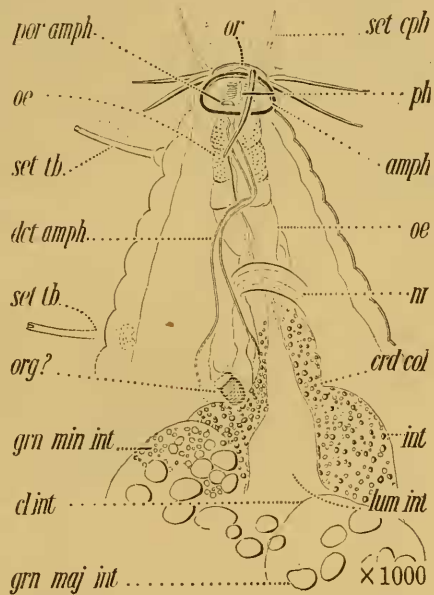


Fig. 2.—Internal anatomy of the head end of *Greeffiella dasyura*. Lettering as in Fig. 1. *cl int*, one of the cells of the intestine; *crd col*, cardiac collum; *det amph*, duct connecting with the amphidial pore; *grn maj int*, one of the larger intestinal granules; *grn min int*, smaller intestinal granules; *int*, intestine; *lum int*, lumen of the intestine; *nr*, nerve ring; *org ?*, organ of doubtful significance; *set tb*, tubular seta.

tail. This tubular spinneret is about as wide as one of the spicules of the male; it is a simple truncate affair which tapers but very little. A marked peculiarity of the posterior extremity of the nema is the existence of numerous minute setae; for a distance equal to the length of the spinneret the setae of the portion of the tail immediately in front of the spinneret are very much reduced and more numerous. The spherical caudal glands are located behind the anus in the anterior fourth of the tail and empty through separate ducts; each is about one-fifth as wide as the corresponding portion of the tail, or as wide as one of the somatic annules opposite. Only two nuclei were seen in connection with these glands, and these were located in the vicinity of the anus, their number indicating that the number of caudal glands may be less than the usual three. The excretory pore lies near the nerve-ring opposite the sixth annule in the male and opposite the seventh in the female; its spherical ampulla is one-fourth as wide as the corresponding portion of the neck. The nerve-ring surrounds the oesophagus somewhat obliquely where it first diminishes in diameter somewhat behind the middle. In the dorsal side of the neck, opposite the 9-14 rows of setae there are some relatively large organs,—probably two or more finely granular cells. From the somewhat inconspicuous, small, elevated vulva, which is surrounded by minute setae, the small, weak, non-cutinized, tubular vagina leads inward at right angles to the ventral surface about one-third the distance across the body. Little is known concerning the double symmetrically reflexed female sexual organs.

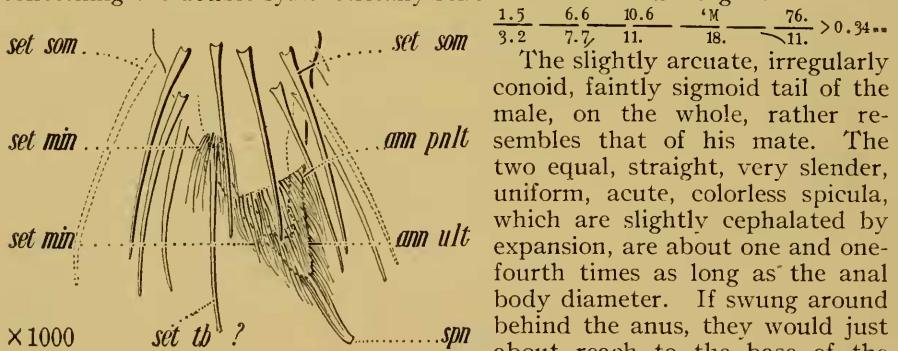


Fig. 3.—Tail end of *Greeffiella dasyura*. Lettering as in Figs. 1 and 2. *ann pnlt*, penultimate annule; *ann ult*, ultimate annule; *spn*, spinneret.

winged. No gubernaculum has been seen. On the fifth and eleventh annules in front of the anus occur ventrally submedian papilla-like organs, indicated by the presence of minute setae arranged in a cluster about a nerve ending (?),—about ten setae on the fifth annule and a much smaller number on the eleventh. There are also similar ventrally sublateral bunches of setae on the annules preceding the large (duplex?) conical one bearing the spinneret. On the lateral field near the middle of the male, a bunch of minute setae was observed like those on the fifth annule in front of the anus. The nature of these special organs, for such they must be, remains in doubt. It seems quite possible that some of them are male supplementary organs. The wide cylindrical testis is one-half as wide as the body and is reflexed to near the proximal ends of the spicula.

The slightly arcuate, irregularly conoid, faintly sigmoid tail of the male, on the whole, rather resembles that of his mate. The two equal, straight, very slender, uniform, acute, colorless spicula, which are slightly cephalated by expansion, are about one and one-fourth times as long as the anal body diameter. If swung around behind the anus, they would just about reach to the base of the spinneret; they are about twice as wide as the bases of the somatic setae, are a little larger distally than elsewhere, and are perhaps

*Habitat*: Found in sponges, Biscayne Bay, Florida, U. S. A., March, 1916. Male examined and measured in a living condition; female fixed in Flemming's solution and soon after examined and measured in water. The form of the pharynx and oesophagus; the presence of special tubular setae; the structure of the spinneret, and the relatively small number of annules, seem to indicate a closer relationship of *Greeffiella* with *Desmoscolex* than has been hitherto imagined. Perhaps *Greeffiella* should be placed in the same family with *Desmoscolex*, *Tricoma*, etc.

ETHNOLOGY.—*Some new ethnologic data from Louisiana.*<sup>1</sup> DAVID I. BUSHNELL, JR.

The following brief notes were secured by the writer during January and February, 1922, from a woman named Rose Deruisé, who was born near New Orleans January 6, 1834. She claims to be, and probably is, three-fourths Indian, her mother having been a full blood and her father a half blood. The early years of her life were spent at an Indian village a few miles west of New Orleans, situated between the left bank of the Mississippi and the south shore of Lake Pontchartrain, in the northern part of Jefferson Parish, Louisiana. During the Civil War the site of the native settlement was occupied by a Federal camp, known as Parapet camp, and it appears that after the war the settlement no longer existed as it had in earlier years. The following notes record the manners and customs of the people of the native village during the years preceding the war.

It is now difficult to identify the tribe to which my informant belonged. She says that her people often visited the Choctaw who then lived across Lake Pontchartrain, and that all spoke the same language, although in some instances the names of certain objects and of plants and animals differed. This may have been a small detached settlement of the Choctaw and may have occupied the site of a more ancient village of the old Washa tribe after the latter had become scattered. According to Bienville the Washa spoke Chitimacha, but it is possible that remnants of the tribe later adopted the language of the Choctaw. Possibly my informant was descended from some of these, and many of the peculiar customs and ways of life related by her may have been those of the ancient Washa.

*Habitations*.—Some structures were circular and others rectangular, and in addition to these a sloping single roof was supported by posts—a lean-to which served as shelter from sun and rain. All were thatched

<sup>1</sup> Received June 6, 1922.

on top and sides with palmetto leaves. Mats made of rushes were often used on the inner walls of the more elaborate structures.

In addition to the village which stood a short distance west of New Orleans, the old woman recalled a camp site on the southeast shore of Lake Pontchartrain, about 12 miles northeast of New Orleans, at Petit Bois, or Little Woods. It was here that the Indians stopped when preparing to cross the lake in their canoes, and it was likewise the landing place when they arrived from the opposite shore. Fragmentary pottery, bits of animal bones, etc., discovered in 1916 and 1917, indicated the position of this old camp ground.

*Food.*—Strips of venison, ducks, etc., were dried or smoked and so preserved for future use. All were first thoroughly cleaned and salted, then strung on cords and suspended between two trees or posts, and a fire kindled on the ground beneath. The warmth and smoke would soon dry the meat. Shrimp were dried in the sun after first being placed in scalding water to harden the meat. Fish were prepared by first being thoroughly cleaned, and after a quantity of salt was rubbed on the flesh they were piled one upon another in a large wooden tray and held down by a heavy weight. In this position they were allowed to remain for ten days or two weeks, during which time they would become quite dry, the moisture being pressed from them. Next they were strung on cords that passed through the tails, the ends of the cords were fastened to trees or posts, and the fish thus suspended were more completely dried and cured by the smoke and heat of small fires kindled on the ground under them.

All vegetables obtainable, such as potatoes and pieces of pumpkins, were boiled in a large pot with rabbits or squirrels, or pieces of meat of any sort.

Filé was prepared by pounding in a wooden mortar the dried leaves of *Sassafras variifolium*.

Leaves of the yaupon (*Ilex vomitoria*) were boiled in water and the liquid was used as a beverage like ordinary tea. The leaves were used either green or dried. Milk was added to the drink when it could be obtained.

The favorite method of preparing corn was to allow the whole grains to remain in water overnight, or until they would swell and the husks become softened and loosened. The husks were then removed and the grains crushed in a wooden mortar to form a thick paste. The paste or crushed grain was later boiled in water and so eaten.

*Caches.*—Caches were used extensively and every family had one or more. Quantities of dried fish and venison, supplies of various sorts, dressed skins, etc., were deposited in caches, and when so hidden would seldom be found except by their owners. Caches were prepared by making an excavation in dry ground and lining it with a large number of palmetto leaves. The material to be protected was placed in a crude box or wrapped in bark and placed in the pit. More palmetto leaves were then placed on top and they in turn were usually covered with an old blanket or one or more skins. All was then covered with earth or sand and made to resemble the surrounding surface. When the house was occupied similar pits were used to hold the potatoes, hides, and other possessions of the family, but they were not so carefully closed and protected.

*Dress and personal decoration.*—Tattooing was practiced extensively by the people of two or more generations ago. The skin was pricked with a needle, or with several needles tied together, and the surface thus punctured rubbed with soot which had been mixed with oil or some kind of grease. The women, after marriage, often had a dot tattooed near the corner of the mouth. The hands, arms, and neck were likewise decorated.

Pins, brooches, earrings, and other ornaments were made of silver coins hammered thin, then cut and trimmed to the desired shape and size.

*Skin dressing.*—Some skins were prepared for various uses without removing the hair or wool. They were stretched in a frame or over some firm surface as soon after being removed from the animal as possible, otherwise they would become hard and dry. When properly stretched, a quantity of dry corn meal was rubbed on the flesh side to absorb all the oil and grease, the surface was scraped with a sharp implement to remove the particles of flesh, more corn meal was rubbed in, and the surface again scraped. Soon the entire skin would become soft and pliable. If it was desired to tan the skin with the hair removed, the latter was first singed with a hot coal or moved quickly over a small flame until it could be rubbed off, then both sides of the skin were treated with corn meal and scraped, as described above. The implement used in scraping the skins resembled a long chisel, made of hard wood and beveled at one end.

*Pottery.*—Earthenware vessels were made and used for many purposes. Three sorts of clay were known, black or gray, white, and red,